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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/765,931

01/29/2004

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Q79041

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23373 7590 05/08/2008
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EXAMINER

NGUYEN, KHIEM D

ART UNIT

PAPER NUMBER

2823

MAIL DATE

DELIVERY MODE

05/08/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/765,931	Applicant(s) KUKIMOTO ET AL.	
	Examiner KHIEM D. NGUYEN	Art Unit 2823	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-4 and 8-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-4 and 8-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

New Grounds of Rejection

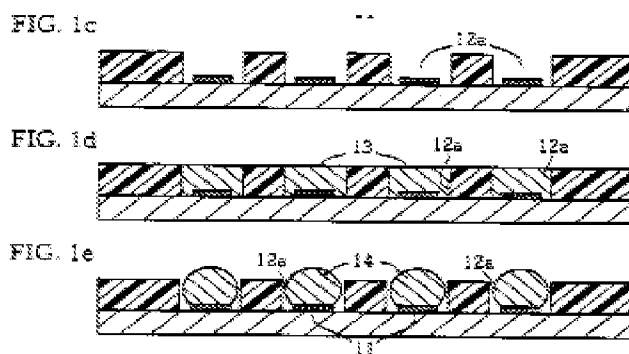
Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2-4, 8-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakuyama (U.S. Patent 6,524,943) in view of Amita et al. (U.S. Patent 6,881,278).

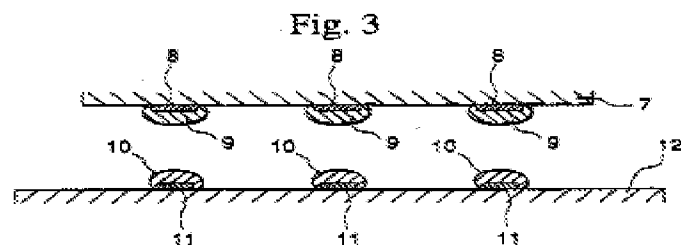
In re claim 8, Sakuyama discloses a solder deposition method comprising the steps of: forming a dam **12** around an electrode **11** on a substrate **10**; applying a solder precipitating composition **13** to said substrate **10**; and heating the resulting substrate so as to form a solder **14** on the surface of said electrode **11** (see col. 5, line 45 to col. 6, line 27 and FIGS. 1c-e),



wherein said solder precipitating composition comprises a tin powder, and a silver or copper complex (see col. 4, lines 52-60 and examples 1-9 in cols. 7-10).

Sakuyama is silent about wherein a silver or copper complex of at least one member selected from the group consisting of aryl phosphines, alkyl phosphines and azoles.

Amita et al., however, discloses a solder deposition method comprising the steps of applying a solder precipitating composition to the substrate **12** having electrodes **11**; heating the resulting substrate so as to form a solder **10** on the surface of the electrodes **11** (see col. 27, lines 51-64 and FIG. 3).



wherein the solder precipitating composition comprises a tin powder and a silver or copper complex of at least one member selected from the group consisting of aryl phosphines, alkyl phosphines and azoles ((see col. 3, line 46 to col. 5, line 40); (col. 7, line 52 to col. 8, line 19); (col. 9, line 57 to col. 10, line 31); and (col. 16, lines 7-11)).

As **Amita et al.** disclose, one of ordinary skill in the art would have been motivated to provide a solder precipitating composition comprises a tin powder and a silver or copper complex of at least one member selected from the group consisting of aryl phosphines, alkyl phosphines and azoles in order to obtain a flux, a solder paste, and a solder powder each having excellent storage stability, reflow property, solderability, wettability (see col. 3, lines 26-36 of Amita et al.).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant(s) claimed invention was made to modify Sakuyama reference with the solder precipitating composition as taught by Amita et al. in order to obtain a flux, a solder paste, and a solder powder each having excellent storage stability, reflow property, solderability, wettability (see col. 3, lines 26-36 of Amita et al.).

In re claim 2, as applied to claim 8 above, Sakuyama in combination with Amita et al. disclose all claimed limitations including the limitation wherein said step of forming a dam includes the steps of: forming a resin film **12** on the surface of said substrate **10**; and providing an opening part **12a** in said resin film **12** so that a dam is formed around an electrode **11** on a substrate **10** (see col. 5, lines 45-61 and FIGS. 1a-c of Sakuyama).

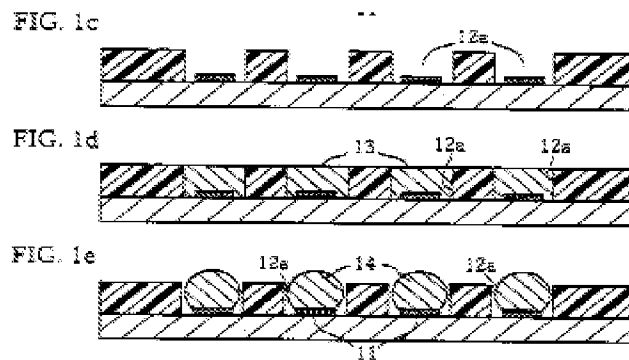
In re claim 3, as applied to claim 8 above, Sakuyama in combination with Amita et al. disclose all claimed limitations including the limitation wherein said dam is not removed after depositing solder (see FIG. 1e of Sakuyama).

In re claim 4, as applied to claim 8 above, Sakuyama in combination with Amita et al. disclose all claimed limitations including the limitation wherein said substrate **10** is a via-on-pad structured substrate (see col. 5, lines 45-56 and FIGS. 1a-c of Sakuyama).

In re claim 9, Sakuyama discloses a solder deposition method comprising the steps of: forming a dam **12** around an electrode **11** on a substrate **10**, applying a solder precipitating composition **13** to said substrate **10**; and heating the resulting

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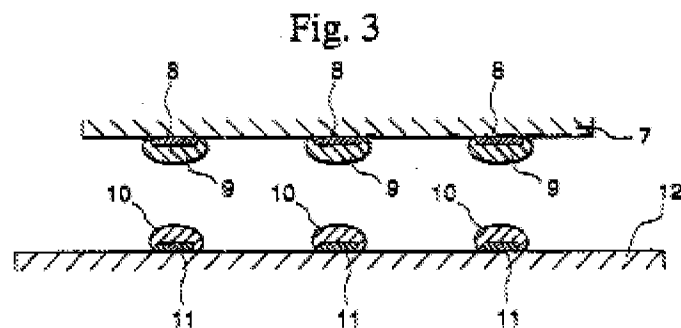
substrate **10** so as to deposit solder on the surface of said electrode **11** while heating said solder precipitating composition **13** applied (see col. 5, line 45 to col. 6, line 27 and FIG. 1c-e),



wherein said solder precipitating composition **13** comprises a tin powder and a silver or copper complex (see col. 4, lines 52-60 and examples 1-9 in cols. 7-10).

Sakuyama is silent about wherein the solder precipitating composition comprises a tin powder and a salt of at least one metal selected from the group consisting of lead, copper and silver.

Amita et al., however, discloses a solder deposition method comprising the steps of applying a solder precipitating composition to the substrate **12** having electrodes **11**; heating the resulting substrate so as to form a solder **10** on the surface of the electrodes **11** (see col. 27, lines 51-64 and FIG. 3).



wherein the solder precipitating composition comprises a tin powder and a salt of at least one metal selected from the group consisting of lead, copper and silver ((see col. 3, line 46 to col. 5, line 40); (col. 7, line 52 to col. 8, line 19); (col. 9, line 57 to col. 10, line 31); and (col. 16, lines 7-11).

As Amita et al. disclose, one of ordinary skill in the art would have been motivated to provide a solder precipitating composition comprises a tin powder and a salt of at least one metal selected from the group consisting of lead, copper and silver in order to obtain a flux, a solder paste, and a solder powder each having excellent storage stability, reflow property, solderability, wettability (see col. 3, lines 26-36 of Amita et al.).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant(s) claimed invention was made to modify Sakuyama reference with the solder precipitating composition as taught by Amita et al. in order to obtain a flux, a solder paste, and a solder powder each having excellent storage stability, reflow property, solderability, wettability (see col. 3, lines 26-36 of Amita et al.).

In re claim 10, as applied to claim 9 above, Sakuyama in combination with Amita et al. disclose all claimed limitations including the limitation wherein said step of forming a dam includes the steps of: forming a resin film **12** on the surface of said substrate **10**; and providing an opening part **12a** in said resin film **12** so that a dam is formed around an electrode **11** on a substrate **10** (see col. 5, lines 45-61 and FIGS. 1a-c of Sakuyama).

In re claim 11, as applied to claim 9 above, Sakuyama in combination with Amita et al. disclose all claimed limitations including the limitation wherein said dam is not removed after depositing solder (see FIG. 1e of Sakuyama).

In re claim 12, as applied to claim 9 above, Sakuyama in combination with Amita et al. disclose all claimed limitations including the limitation wherein said substrate 10 is a via-on-pad structured substrate (see col. 5, lines 45-56 and FIGS. 1a-c).

In re claim 13, Sakuyama discloses a solder deposition method comprising the steps of: forming a dam around an electrode 11 on a substrate 10; applying a solder precipitating composition 13 comprising a tin powder and a silver or copper complex (see col. 4, lines 52-60 and examples 1-9 in cols. 7-10) to said substrate 10; and heating the resulting substrate, whereby the tin powder reacts with the complex so as to precipitate a solder 14 on the surface of said electrode 11 (see col. 5, line 45 to col. 6, line 27 and FIGS. 1c-e).

FIG. 1c

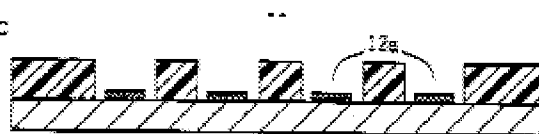
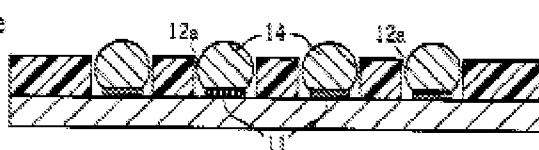


FIG. 1d

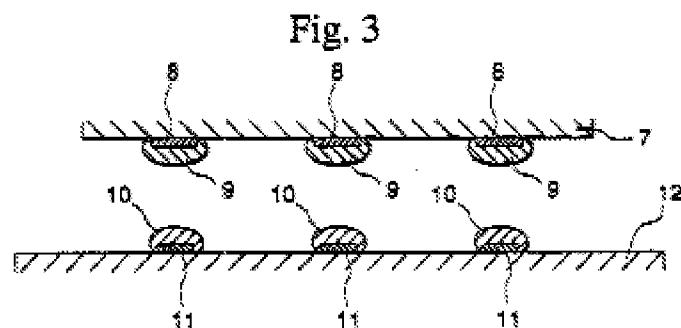


FIG. 1e



Sakuyama is silent about wherein a solder precipitating composition comprising a tin powder and a silver or copper complex of at least one member selected from the group consisting of aryl phosphines, alkyl phosphines and azoles.

Amita et al., however, discloses a solder deposition method comprising the steps of applying a solder precipitating composition to the substrate **12** having electrodes **11**; heating the resulting substrate so as to form a solder **10** on the surface of the electrodes **11** (see col. 27, lines 51-64 and FIG. 3).



wherein the solder precipitating composition comprises a tin powder and a silver or copper complex of at least one member selected from the group consisting of aryl phosphines, alkyl phosphines and azoles ((see col. 3, line 46 to col. 5, line 40); (col. 7, line 52 to col. 8, line 19); (col. 9, line 57 to col. 10, line 31); and (col. 16, lines 7-11).

As **Amita et al.** disclose, one of ordinary skill in the art would have been motivated to provide a solder precipitating composition comprises a tin powder and a silver or copper complex of at least one member selected from the group consisting of aryl phosphines, alkyl phosphines and azoles in order to obtain a flux, a solder paste,

and a solder powder each having excellent storage stability, reflow property, solderability, wettability (see col. 3, lines 26-36 of Amita et al.).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant(s) claimed invention was made to modify Sakuyama reference with the solder precipitating composition as taught by Amita et al. in order to obtain a flux, a solder paste, and a solder powder each having excellent storage stability, reflow property, solderability, wettability (see col. 3, lines 26-36 of Amita et al.).

In re claim 14, Sakuyama discloses a solder deposition method comprising the steps of: forming a dam around an electrode **11** on a substrate **10**; kneading a composition comprising tin powder and a silver or copper complex (see col. 4, lines 52-60 and examples 1-9 in cols. 7-10) to form a solder precipitating composition **13**; applying said solder precipitating composition **13** to said substrate **10**; and heating the resulting substrate **10** so as to deposit a solder **14** on the surface of said electrode (see col. 5, line 45 to col. 6, line 27 and FIGS. 1c-e).

FIG. 1c



FIG. 1d

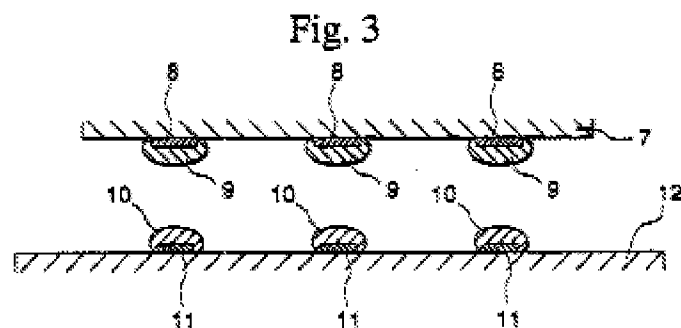


FIG. 1e



Sakuyama is silent about wherein composition comprising a tin powder and a silver or copper complex of at least one member selected from the group consisting of aryl phosphines, alkyl phosphines and azoles.

Amita et al., however, discloses a solder deposition method comprising the steps of applying a solder precipitating composition to the substrate 12 having electrodes 11; heating the resulting substrate so as to form a solder 10 on the surface of the electrodes 11 (see col. 27, lines 51-64 and FIG. 3).



wherein the solder precipitating composition comprises a tin powder and a silver or copper complex of at least one member selected from the group consisting of aryl phosphines, alkyl phosphines and azoles ((see col. 3, line 46 to col. 5, line 40); (col. 7, line 52 to col. 8, line 19); (col. 9, line 57 to col. 10, line 31); and (col. 16, lines 7-11).

As **Amita et al.** disclose, one of ordinary skill in the art would have been motivated to provide a solder precipitating composition comprises a tin powder and a silver or copper complex of at least one member selected from the group consisting of aryl phosphines, alkyl phosphines and azoles in order to obtain a flux, a solder paste,

and a solder powder each having excellent storage stability, reflow property, solderability, wettability (see col. 3, lines 26-36 of Amita et al.).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant(s) claimed invention was made to modify Sakuyama reference with the solder precipitating composition as taught by Amita et al. in order to obtain a flux, a solder paste, and a solder powder each having excellent storage stability, reflow property, solderability, wettability (see col. 3, lines 26-36 of Amita et al.).

In re claim 15, Sakuyama discloses a solder deposition method comprising the steps of: forming a dam around an electrode **11** on a substrate **10**; applying a solder precipitating composition **13** comprising a tin powder and a metal selected from the group consisting of lead, copper and silver to said substrate **10** (see col. 4, lines 52-60 and examples 1-9 in cols. 7-10); and heating the resulting substrate **10**, whereby the tin powder reacts with the metal so as to precipitate solder **14** on the surface of said electrode **11** (see col. 5, line 45 to col. 6, line 27 and FIGS. 1c-e).

FIG. 1c



FIG. 1d

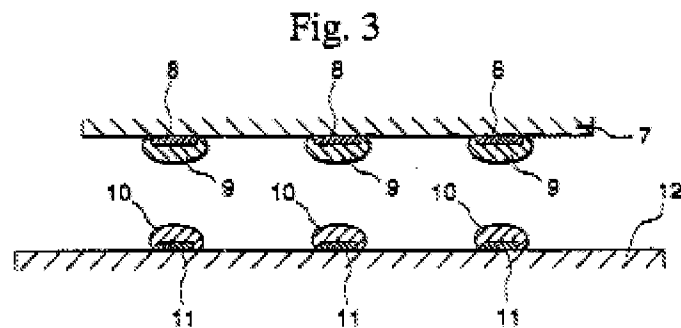


FIG. 1e



Sakuyama is silent about wherein the solder precipitating composition comprises a tin powder and a salt of at least one metal selected from the group consisting of lead, copper and silver.

Amita et al., however, discloses a solder deposition method comprising the steps of applying a solder precipitating composition to the substrate 12 having electrodes 11; heating the resulting substrate so as to form a solder 10 on the surface of the electrodes 11 (see col. 27, lines 51-64 and FIG. 3).



wherein the solder precipitating composition comprises a tin powder and a salt of at least one metal selected from the group consisting of lead, copper and silver ((see col. 3, line 46 to col. 5, line 40); (col. 7, line 52 to col. 8, line 19); (col. 9, line 57 to col. 10, line 31); and (col. 16, lines 7-11).

As **Amita et al.** disclose, one of ordinary skill in the art would have been motivated to provide a solder precipitating composition comprises a tin powder and a salt of at least one metal selected from the group consisting of lead, copper and silver in order to obtain a flux, a solder paste, and a solder powder each having excellent storage stability, reflow property, solderability, wettability (see col. 3, lines 26-36 of Amita et al.).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant(s) claimed invention was made to modify Sakuyama reference with the solder precipitating composition as taught by Amita et al. in order to obtain a flux, a solder paste, and a solder powder each having excellent storage stability, reflow property, solderability, wettability (see col. 3, lines 26-36 of Amita et al.).

In re claim 16, Sakuyama discloses a solder deposition method comprising the steps of: forming a dam around an electrode **11** on a substrate **10**; kneading a composition comprising tin powder and at least one metal selected from the group consisting of lead, copper and silver to form a solder precipitating composition (see col. 4, lines 52-60 and examples 1-9 in cols. 7-10); applying a solder precipitating composition **13** to said substrate **10**; and heating the resulting substrate **10** so as to deposit a solder **14** on the surface of said electrode **11** while heating said solder precipitating composition applied (see col. 5, line 45 to col. 6, line 27 and FIGS. 1c-e).

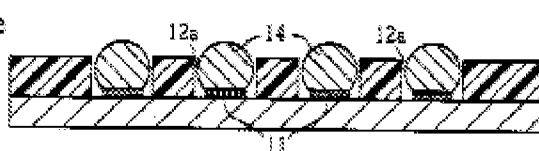
FIG. 1c



FIG. 1d

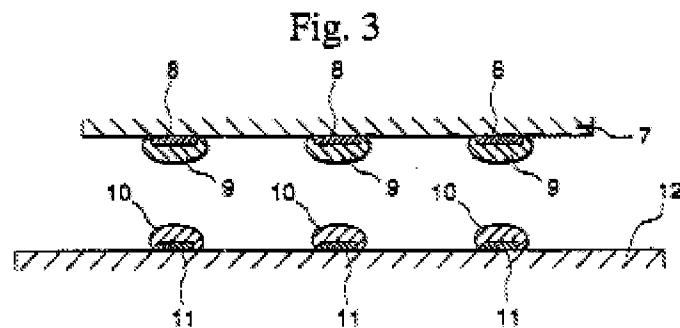


FIG. 1e



Sakuyama is silent about wherein the solder precipitating composition comprises a tin powder and a salt of at least one metal selected from the group consisting of lead, copper and silver.

Amita et al., however, discloses a solder deposition method comprising the steps of applying a solder precipitating composition to the substrate **12** having electrodes **11**; heating the resulting substrate so as to form a solder **10** on the surface of the electrodes **11** (see col. 27, lines 51-64 and FIG. 3).

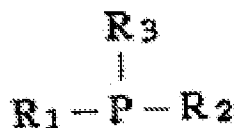


wherein the solder precipitating composition comprises a tin powder and a salt of at least one metal selected from the group consisting of lead, copper and silver ((see col. 3, line 46 to col. 5, line 40); (col. 7, line 52 to col. 8, line 19); (col. 9, line 57 to col. 10, line 31); and (col. 16, lines 7-11).

As Amita et al. disclose, one of ordinary skill in the art would have been motivated to provide a solder precipitating composition comprises a tin powder and a salt of at least one metal selected from the group consisting of lead, copper and silver in order to obtain a flux, a solder paste, and a solder powder each having excellent storage stability, reflow property, solderability, wettability (see col. 3, lines 26-36 of Amita et al.).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant(s) claimed invention was made to modify Sakuyama reference with the solder precipitating composition as taught by Amita et al. in order to obtain a flux, a solder paste, and a solder powder each having excellent storage stability, reflow property, solderability, wettability (see col. 3, lines 26-36 of Amita et al.).

In re claim 17, as applied to claim 8 above, Sakuyama in combination with Amita et al. disclose all claimed limitations including the limitation wherein the phosphine is represented by formula (1)



wherein R1, R2 and R3 each represents a substituted or non-substituted aryl group, or a substituted or non-substituted chain or cyclic alkyl group having 1 to 8 carbon atoms; hydrogen of the aryl group may be substituted with an alkyl having 1 to 8 carbon atoms, an alkoxy group having 1 to 8 carbon atoms, a hydroxyl group, an amino group or a halogen atom at any position; hydrogen of the alkyl group may be substituted with an alkoxy group having 1 to 8 carbon atoms, an aryl group, a hydroxyl group, an amino group or a halogen at any position; and R1, R2 and R3 may be the same or different ((see col. 3, line 46 to col. 5, line 40); (col. 7, line 52 to col. 8, line 19); (col. 9, line 57 to col. 10, line 31); and (col. 16, lines 7-11) of Amita et al.).

In re claim 18, as applied to claim 8 above, **Sakuyama** in combination with **Amita et al.** disclose all claimed limitations including the limitation wherein the aryl phosphines is triphenyl phosphine, tri(o-, m- or p-tolyl) phosphine or tri(p-methoxyphenyl) phosphine ((see col. 3, line 46 to col. 5, line 40); (col. 7, line 52 to col. 8, line 19); (col. 9, line 57 to col. 10, line 31); and (col. 16, lines 7-11) of Amita et al.).

In re claim 19, as applied to claim 8 above, **Sakuyama** in combination with **Amita et al.** disclose all claimed limitations including the limitation wherein the alkyl phosphines is tributyl phosphine, trioctyl phosphine, tris(3-hydroxypropyl) phosphine, or tribenzyl phosphine ((see col. 3, line 46 to col. 5, line 40); (col. 7, line 52 to col. 8, line 19); (col. 9, line 57 to col. 10, line 31); and (col. 16, lines 7-11) of Amita et al.).

In re claim 20, as applied to claim 8 above, **Sakuyama** in combination with **Amita et al.** disclose all claimed limitations including the limitation wherein the complex of aryl phosphines or alkyl phosphines is cationic and the counter anion is an organic sulfonic ion, organic carboxylic ion, halogen ion, nitric ion or sulfuric ion, or mixtures thereof ((see col. 3, line 46 to col. 5, line 40); (col. 7, line 52 to col. 8, line 19); (col. 9, line 57 to col. 10, line 31); and (col. 16, lines 7-11) of Amita et al.).

In re claim 21, as applied to claim 20 above, **Sakuyama** in combination with **Amita et al.** disclose all claimed limitations including the limitation wherein the organic sulfonic acid is a methanesulfonic acid, 2-hydroxyethanesulfonic acid, 2-hydroxypropane-1- sulfonic acid, trichloromethanesulfonic acid,

trifluoromethanesulfonic acid, benzenesulfonic acid, toluenesulfonic acid, phenolsulfonic acid, cresolsulfonic acid, anisolesulfonic acid or naphthalenesulfonic acid ((see col. 3, line 46 to col. 5, line 40); (col. 7, line 52 to col. 8, line 19); (col. 9, line 57 to col. 10, line 31); and (col. 16, lines 7-11) of Amita et al.).

In re claim 22, as applied to claim 20 above, **Sakuyama** in combination with **Amita et al.** disclose all claimed limitations including the limitation wherein the organic carboxylic acid is a monocarboxylic acid, dicarboxylic acid, hydroxycarboxylic acid, or halogen- substituted carboxylic acid ((see col. 3, line 46 to col. 5, line 40); (col. 7, line 52 to col. 8, line 19); (col. 9, line 57 to col. 10, line 31); and (col. 16, lines 7-11) of Amita et al.).

In re claim 23, as applied to claim 22 above, **Sakuyama** in combination with **Amita et al.** disclose all claimed limitations including the limitation wherein the organic carboxylic acid is formic acid, acetic acid, propionic acid, butanoic acid, octanoic acid, oxalic acid, malonic acid, succinic acid, lactic acid, glycolic acid, tartaric acid, citric acid, monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, trifluoroacetic acid or perfluoropropionic acid ((see col. 3, line 46 to col. 5, line 40); (col. 7, line 52 to col. 8, line 19); (col. 9, line 57 to col. 10, line 31); and (col. 16, lines 7-11) of Amita et al.).

In re claim 24, as applied to claim 8 above, **Sakuyama** in combination with **Amita et al.** disclose all claimed limitations including the limitation wherein the azoles is tetrazole, triazole, benzotriazole, imidazole, benzimidazole, pyrazole, indazole, thiazole, benzothiazole, oxazole, benzoxazole, pyrrole, indole and

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derivatives thereof, or a mixture of two or more ((see col. 3, line 46 to col. 5, line 40); (col. 7, line 52 to col. 8, line 19); (col. 9, line 57 to col. 10, line 31); and (col. 16, lines 7-11) of Amita et al.).

In re claim 25, as applied to claim 24 above, **Sakuyama** in combination with **Amita et al.** disclose all claimed limitations including the limitation wherein the azole is tetrazole, 5-mercapto-1-phenyltetrazole, 1,2,3-triazole, 1,2,4-triazole, 3-mercapto-1,2,4-triazole, benzotriazole, tolyltriazole, carboxybenzotriazole, imidazole, 2-mercaptoimidazole, benzimidazole, 2-octylbenzimidazole, 2-phenylbenzimidazole, 2-mercaptobenzimidazole, 2-methylthiobenzimidazole, pyrazole, indazole, thiazole, benzothiazole, 2-phenylbenzothiazole, 2-mercaptobenzothiazole, 2-methylthiobenzothiazole, isoxazole, anthranil, benzoxazole, 2-phenylbenzoxazole, 2-mercaptobenzoxazole, pyrrole, 4,5,6,7-tetrahydroindole or indole ((see col. 3, line 46 to col. 5, line 40); (col. 7, line 52 to col. 8, line 19); (col. 9, line 57 to col. 10, line 31); and (col. 16, lines 7-11) of Amita et al.).

In re claim 26, as applied to claim 9 above, **Sakuyama** in combination with **Amita et al.** disclose all claimed limitations including the limitation wherein the salt is a salt of an organic carboxylic acid or organic sulfonic acid ((see col. 3, line 46 to col. 5, line 40); (col. 7, line 52 to col. 8, line 19); (col. 9, line 57 to col. 10, line 31); and (col. 16, lines 7-11) of Amita et al.).

In re claim 27, as applied to claim 26 above, **Sakuyama** in combination with **Amita et al.** disclose all claimed limitations including the limitation wherein the organic carboxylic acid is monocarboxylic acid, dicarboxylic acid having 1 to 40

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carbon atoms, lower fatty acid, fatty acid obtained from oils and fats of animal and plant, various synthetic acids which are obtained from organic-synthesis reactions, or resin acid ((see col. 3, line 46 to col. 5, line 40); (col. 7, line 52 to col. 8, line 19); (col. 9, line 57 to col. 10, line 31); and (col. 16, lines 7-11) of Amita et al.).

In re claim 28, as applied to claim 27 above, Sakuyama in combination with Amita et al. disclose all claimed limitations including the limitation wherein the organic carboxylic acid is formic acid, acetic acid, propionic acid, capronic acid, caprylic acid, lauric acid, myristic acid, palmitic acid, stearic acid, oleic acid, linolic acid, 2,2-dimethylpentanoic acid, 2- ethylhexanoic acid, iso-nonanoic acid, 2,2-dimethyloctanoic acid, n-undecanoic acid; pimaric acid, abietic acid, dehydroabietic acid, dihydroabietic acid; naphthenic acid obtained from petroleum; dimer acid which is obtained from tall oil fatty acid or soybean fatty acid by synthetic reaction, polymerized rosin to which dimerization of rosin is carried out ((see col. 3, line 46 to col. 5, line 40); (col. 7, line 52 to col. 8, line 19); (col. 9, line 57 to col. 10, line 31); and (col. 16, lines 7-11) of Amita et al.).

In re claim 29, as applied to claim 26 above, Sakuyama in combination with Amita et al. disclose all claimed limitations including the limitation wherein the organic sulfonic acid is methanesulfonic acid, 2-hydroxyethanesulfonic acid, 2-hydroxypropane-1- sulfonic acid, trichloromethanesulfonic acid, trifluoromethanesulfonic acid, benzenesulfonic acid, toluenesulfonic acid, phenolsulfonic acid, cresolsulfonic acid, anisolesulfonic acid or naphthalenesulfonic acid, or mixtures thereof ((see col. 3, line 46 to col. 5, line 40); (col. 7, line 52 to col.

8, line 19); (col. 9, line 57 to col. 10, line 31); and (col. 16, lines 7-11) of Amita et al.).

Response to Applicants' Amendment and Arguments

3. Applicants' arguments with respect to claims 2-4, 8-29 have been considered but are moot in view of the new ground(s) of rejection necessitated by the amendment filed on February 14th, 2008.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Correspondence

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHIEM D. NGUYEN whose telephone number is

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(571)272-1865. The examiner can normally be reached on Monday-Friday (8:30 AM - 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Smith can be reached on (571) 272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brook Kebede/
Primary Examiner, Art Unit 2823

/Khiem D. Nguyen/
Examiner, Art Unit 2823